PC 107

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/868,546

CRF Processing Date: 11/7/01 #5
Edited by:
Verified by: DC (STIC sta

ENTERED

PB

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ *Corrected subheading placement. All responses must be on the same line as each subheading.* If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PCT09

RAW SEQUENCE LISTING DATE: 11/07/2001
PATENT APPLICATION: US/09/868,546 TIME: 12:04:12

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\11072001\I868546.raw

3 <110> APPLICANT: E. I. du Pont de Nemours and Company
5 <120> TITLE OF INVENTION: Flavonoid Biosynthetic Enzymes
7 <130> FILE REFERENCE: BB1324
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/868,546
C--> 10 <141> CURRENT FILING DATE: 2001-09-20
12 <150> PRIOR APPLICATION NUMBER: 60/113,190
13 <151> PRIOR FILING DATE: 1998-12-21
15 <160> NUMBER OF SEQ ID NOS: 6
17 <170> SOFTWARE: Microsoft Office 97
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1859
21 <212> TYPE: DNA
22 <213> ORGANISM: Glycine max
24 <400> SEQUENCE: 1
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26 gttgttggtg gtggtctcat acgctgtcct tttcctggtt ctattcctcg gcgtgaagtt 120
27 tgttttccaa agcagaaaat tgagaaacat accaccaggt cctcctcctc ttcccataat 180
28 aggaaacctt aacctcctcg aacagccaat ccaccgtttc ttccaacgca tgtcgaaaca 240
29 gtacggcaac gtggtttccc tctggttcgg ttcacgtctg gccgttgtca tctcctctcc 300
30 aacagcatac caagaatgct tcaccaaaca cgacgttgcc ttggccaacc ggctaccttc 360
31 tctctcggga aaatacatct tctacaacaa caccaccgta ggctcctgct cccacggcga 420
32 gcactggcgc aacctccgcc gcatcaccgc cctggacgtc ctctccacgc agcgcgtcca 480
33 ctccttctcc ggaatccgga gcgacgagac gaagcgtctg atgcagaggt tggtgctggc 540
34 caagaactcg aacgaggaag agtttgcgcg agtggagatt agttcgatgt tcaacgactt 600
35 aacttacaac aacataatga ggatgatatc ggggaagagg ttttacggag aggagagtga 660
36 gatgaagaac gttgaggaag cgagggagtt cagagagact gtgacagaaa tgttggaact 720
37 catgggcttg gctaacaagg gagatcactt gcctttcctc aggtggttcg attttcagaa 780
38 tgtggagaag cgcttaaaga gtatcagtaa gaggtacgat tccatcttga ataagatcct 840
39 tcatgagaac cgtgccagca atgaccgcca gaattccatg atcgatcatc tcctcaaact 900
40 gcaagagacc cagcctcagt actacactga ccaaatcatc aaaggccttg ctctggccat 960
41 gctttttggt ggaactgact catcaactgg gactttagag tggtcattat ctaatttatt 1020
42 gaatcaccca gaggtgttga agaaggcaag agatgaattg gacactcaag tgggacaaga 1080
43 ccgcttgtta aatgagtcag accttccaaa acttccatat cttaggaaga tcatccttga 1140
44 gacacttagg ttgtaccccc cggccccaat tctaatacct catgtgtctt cagaagatat 1200
45 tacaattgaa ggattcaata tcccacgaga cacaattgtg atcattaatg gttggggcat 1260
46 gcagagagat cctcagttgt ggaatgatgc cacatgcttt aaacctgaga ggtttgatgt 1320
47 ggaaggagag gagaaaaagt tggtagcatt tggcatggga agaagggctt gcccaggaga 1380
48 acccatggct atgcaaagtg tcagctttac tttgggattg ttgattcaat gttttgactg 1440
49 gaaacgagta agtgaggaaa agcttgatat gacagagaac aattggatca ccttgtcaag 1500
50 gttaattcca ttggaggcca tgtgcaaggc tcgcccactt gccactaaaa ttggaattta 1560
51 attattaata gtatttttat ttggtaaact tgggtgattc agaatctaat acttataatt 1620
52 ttagtgtgta agagtggtga tcatatatac atttcaaaat taataatctt tgtccaaaaa 1680
53 tcatccatgg acaactatat gtcaattgac atctagagag aaatatagat ataagaatat 1740
54 ttatatttta ttactcttct ttatcttatg tgtcaaggcc cattgtagaa ttgggtgagc 1800
55 attaacatat atcaatattg tataccgccc agttttctca aataaatttc tttactttc 1859
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 499

RAW SEQUENCE LISTING DATE: 11/07/2001
PATENT APPLICATION: US/09/868,546 TIME: 12:04:12

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\11072001\I868546.raw

<212> TYPE: PRT
<213> ORGANISM: Glycine max
<400> SEQUENCE: 2

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Leu Leu Val Val Val Ser Tyr Ala Val Leu Phe Leu Val Leu Phe Leu
 1               5                  10                  15
Gly Val Lys Phe Val Phe Gln Ser Arg Lys Leu Arg Asn Ile Pro Pro
            20                  25                  30
Gly Pro Pro Pro Leu Pro Ile Ile Gly Asn Leu Asn Leu Leu Glu Gln
        35                  40                  45
Pro Ile His Arg Phe Phe Gln Arg Met Ser Lys Gln Tyr Gly Asn Val
    50                  55                  60
Val Ser Leu Trp Phe Gly Ser Arg Leu Ala Val Val Ile Ser Ser Pro
65                  70                  75                  80
Thr Ala Tyr Gln Glu Cys Phe Thr Lys His Asp Val Ala Leu Ala Asn
                85                  90                  95
Arg Leu Pro Ser Leu Ser Gly Lys Tyr Ile Phe Tyr Asn Asn Thr Thr
            100                 105                 110
Val Gly Ser Cys Ser His Gly Glu His Trp Arg Asn Leu Arg Arg Ile
        115                 120                 125
Thr Ala Leu Asp Val Leu Ser Thr Gln Arg Val His Ser Phe Ser Gly
    130                 135                 140
Ile Arg Ser Asp Glu Thr Lys Arg Leu Met Gln Arg Leu Val Leu Ala
145                 150                 155                 160
Lys Asn Ser Asn Glu Glu Glu Phe Ala Arg Val Glu Ile Ser Ser Met
                165                 170                 175
Phe Asn Asp Leu Thr Tyr Asn Asn Ile Met Arg Met Ile Ser Gly Lys
            180                 185                 190
Arg Phe Tyr Gly Glu Glu Ser Glu Met Lys Asn Val Glu Glu Ala Arg
        195                 200                 205
Glu Phe Arg Glu Thr Val Thr Glu Met Leu Glu Leu Met Gly Leu Ala
    210                 215                 220
Asn Lys Gly Asp His Leu Pro Phe Leu Arg Trp Phe Asp Phe Gln Asn
225                 230                 235                 240
Val Glu Lys Arg Leu Lys Ser Ile Ser Lys Arg Tyr Asp Ser Ile Leu
                245                 250                 255
Asn Lys Ile Leu His Glu Asn Arg Ala Ser Asn Asp Arg Gln Asn Ser
            260                 265                 270
Met Ile Asp His Leu Leu Lys Leu Gln Glu Thr Gln Pro Gln Tyr Tyr
        275                 280                 285
Thr Asp Gln Ile Ile Lys Gly Leu Ala Leu Ala Met Leu Phe Gly Gly
    290                 295                 300
Thr Asp Ser Ser Thr Gly Thr Leu Glu Trp Ser Leu Ser Asn Leu Leu
305                 310                 315                 320
Asn His Pro Glu Val Leu Lys Lys Ala Arg Asp Glu Leu Asp Thr Gln
                325                 330                 335
Val Gly Gln Asp Arg Leu Leu Asn Glu Ser Asp Leu Pro Lys Leu Pro
            340                 345                 350
Tyr Leu Arg Lys Ile Ile Leu Glu Thr Leu Arg Leu Tyr Pro Pro Ala
        355                 360                 365
```

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Input Set : A:\PTO.DC.txt
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```
132 Pro Ile Leu Ile Pro His Val Ser Ser Glu Asp Ile Thr Ile Glu Gly
133     370                 375                 380
135 Phe Asn Ile Pro Arg Asp Thr Ile Val Ile Ile Asn Gly Trp Gly Met
136 385                 390                 395                 400
138 Gln Arg Asp Pro Gln Leu Trp Asn Asp Ala Thr Cys Phe Lys Pro Glu
139                 405                 410                 415
141 Arg Phe Asp Val Glu Gly Glu Glu Lys Lys Leu Val Ala Phe Gly Met
142             420                 425                 430
144 Gly Arg Arg Ala Cys Pro Gly Glu Pro Met Ala Met Gln Ser Val Ser
145         435                 440                 445
147 Phe Thr Leu Gly Leu Leu Ile Gln Cys Phe Asp Trp Lys Arg Val Ser
148     450                 455                 460
150 Glu Glu Lys Leu Asp Met Thr Glu Asn Asn Trp Ile Thr Leu Ser Arg
151 465                 470                 475                 480
153 Leu Ile Pro Leu Glu Ala Met Cys Lys Ala Arg Pro Leu Ala Thr Lys
154                 485                 490                 495
156 Ile Gly Ile
159 <210> SEQ ID NO: 3
160 <211> LENGTH: 1698
161 <212> TYPE: DNA
162 <213> ORGANISM: Glycine max
164 <400> SEQUENCE: 3
165 cagtaataac aatgtctcct ttcttatctt actctcttct ttccctcgtg ttcttcttca   60
166 ctctcaagta ccttttccaa agaagcagaa aagtacgaaa cctgccacct ggtccgactc  120
167 ctcttcctat aatcggcaac cttaacctcg ttgaacaacc tatacaccgt ttcttccacc  180
168 gcatgtccca aaaatatgga aacatcatat ccctttggtt tgggtcacgt cttgttgtgg  240
169 ttgtttcatc acccacagcg taccaagaat gtttcaccaa acatgatgtt accttggcca  300
170 acagggtacg ctccctctcg ggaaaataca tattctacga caacaccacc gtagggtctt  360
171 gctcccacgg cgagcactgg cgcaacctcc gccgcataac ctctctcgac gttctatcga  420
172 cgcagcgcgt ccactccttc tccggaatcc ggagcgacga gacgaagagg ttgatacaca  480
173 ggctggccag ggactccggg aaagattttg cgcgcgtgga gatgacctcc aagtttgctg  540
174 acttgacgta caacaacatc atgaggatga tttcggggaa gcggttttac ggagaagaga  600
175 gtgaacttaa caacgttgag gaagcgaagg agttcagaga cactgtgaat gagatgctgc  660
176 aactcatggg gttggctaac aagggagatc acttaccttt cctaaggtgg ttcgatttc  720
177 agaacgtgga gaagaggttg aagaatatca gtaagaggta tgataccatc ttgaataaga  780
178 tccttgatga gaaccgtaac aacaaggacc gcgagaattc catgattggt catctcctca  840
179 aactgcaaga gacacagcct gactattata ccgaccaaat catcaaaggc cttgctttgg  900
180 ctatgctctt tggtggaaca gactcgtcaa ctggaacttt agagtgggca ttatctaatt  960
181 tagtgaatga cccagaggtg ctgcagaagg caagagatga gttggacgct caagtaggac 1020
182 cagatcggct gttaaatgag tcagaccttc caaaacttcc ttatctcagg aagatagttc 1080
183 ttgaaacact taggttgtac cctccggctc caattctaat accacacgtg gcttcagaag 1140
184 acatcaatat cgaaggattc aatgttccac gagacacaat tgtgattatt aatggttggg 1200
185 ccatgcaaag agatcctaag atatggaaag atgcgacaag ctttaaacct gagaggtttg 1260
186 atgaagaagg agaggagaag aaattggtag catttggtat gggaagaagg gcttgcccag 1320
187 gagaacccat ggctatgcaa agtgttagct atactttggg attaatgatt caatgttttg 1380
188 actggaaacg agtaagtgag aagaagcttg atatgacaga gaataattgg atcaccttgt 1440
189 caaggttaat tccattggag gctatgtgta aagcccgccc actcgccagc aaagttgaaa 1500
190 gttattaaca atattttatt tggtatattt gggtgaggat ctaatactca taatttcggt 1560
191 gtgtaagtct atgcatgtta aaattaataa tatttgtcgt atgtccacaa ggccaaatgt 1620
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RAW SEQUENCE LISTING DATE: 11/07/2001
PATENT APPLICATION: US/09/868,546 TIME: 12:04:12

Input Set : A:\PTO.DC.txt
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192 agtactgggt gtggatttgc atatacaata tcaatattgt ataaatccca gtttccttga 1680
193 ataaatttct ttactttc 1698
195 <210> SEQ ID NO: 4
196 <211> LENGTH: 494
197 <212> TYPE: PRT
198 <213> ORGANISM: Glycine max
200 <400> SEQUENCE: 4
201 Leu Ser Tyr Ser Leu Leu Ser Leu Val Phe Phe Phe Thr Leu Lys Tyr
202 1 5 10 15
204 Leu Phe Gln Arg Ser Arg Lys Val Arg Asn Leu Pro Pro Gly Pro Thr
205 20 25 30
207 Pro Leu Pro Ile Ile Gly Asn Leu Asn Leu Val Glu Gln Pro Ile His
208 35 40 45
210 Arg Phe Phe His Arg Met Ser Gln Lys Tyr Gly Asn Ile Ile Ser Leu
211 50 55 60
213 Trp Phe Gly Ser Arg Leu Val Val Val Ser Ser Pro Thr Ala Tyr
214 65 70 75 80
216 Gln Glu Cys Phe Thr Lys His Asp Val Thr Leu Ala Asn Arg Val Arg
217 85 90 95
219 Ser Leu Ser Gly Lys Tyr Ile Phe Tyr Asp Asn Thr Thr Val Gly Ser
220 100 105 110
222 Cys Ser His Gly Glu His Trp Arg Asn Leu Arg Arg Ile Thr Ser Leu
223 115 120 125
225 Asp Val Leu Ser Thr Gln Arg Val His Ser Phe Ser Gly Ile Arg Ser
226 130 135 140
228 Asp Glu Thr Lys Arg Leu Ile His Arg Leu Ala Arg Asp Ser Gly Lys
229 145 150 155 160
231 Asp Phe Ala Arg Val Glu Met Thr Ser Lys Phe Ala Asp Leu Thr Tyr
232 165 170 175
234 Asn Asn Ile Met Arg Met Ile Ser Gly Lys Arg Phe Tyr Gly Glu Glu
235 180 185 190
237 Ser Glu Leu Asn Asn Val Glu Glu Ala Lys Glu Phe Arg Asp Thr Val
238 195 200 205
240 Asn Glu Met Leu Gln Leu Met Gly Leu Ala Asn Lys Gly Asp His Leu
241 210 215 220
243 Pro Phe Leu Arg Trp Phe Asp Phe Gln Asn Val Glu Lys Arg Leu Lys
244 225 230 235 240
246 Asn Ile Ser Lys Arg Tyr Asp Thr Ile Leu Asn Lys Ile Leu Asp Glu
247 245 250 255
249 Asn Arg Asn Asn Lys Asp Arg Glu Asn Ser Met Ile Gly His Leu Leu
250 260 265 270
252 Lys Leu Gln Glu Thr Gln Pro Asp Tyr Tyr Thr Asp Gln Ile Ile Lys
253 275 280 285
255 Gly Leu Ala Leu Ala Met Leu Phe Gly Gly Thr Asp Ser Ser Thr Gly
256 290 295 300
258 Thr Leu Glu Trp Ala Leu Ser Asn Leu Val Asn Asp Pro Glu Val Leu
259 305 310 315 320
261 Gln Lys Ala Arg Asp Glu Leu Asp Ala Gln Val Gly Pro Asp Arg Leu
262 325 330 335

RAW SEQUENCE LISTING DATE: 11/07/2001
PATENT APPLICATION: US/09/868,546 TIME: 12:04:12

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\11072001\I868546.raw

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264 Leu Asn Glu Ser Asp Leu Pro Lys Leu Pro Tyr Leu Arg Lys Ile Val
265             340                 345                 350
267 Leu Glu Thr Leu Arg Leu Tyr Pro Pro Ala Pro Ile Leu Ile Pro His
268         355                 360                 365
270 Val Ala Ser Glu Asp Ile Asn Ile Glu Gly Phe Asn Val Pro Arg Asp
271     370                 375                 380
273 Thr Ile Val Ile Ile Asn Gly Trp Ala Met Gln Arg Asp Pro Lys Ile
274 385                 390                 395                 400
276 Trp Lys Asp Ala Thr Ser Phe Lys Pro Glu Arg Phe Asp Glu Glu Gly
277                 405                 410                 415
279 Glu Glu Lys Lys Leu Val Ala Phe Gly Met Gly Arg Arg Ala Cys Pro
280             420                 425                 430
282 Gly Glu Pro Met Ala Met Gln Ser Val Ser Tyr Thr Leu Gly Leu Met
283         435                 440                 445
285 Ile Gln Cys Phe Asp Trp Lys Arg Val Ser Glu Lys Lys Leu Asp Met
286     450                 455                 460
288 Thr Glu Asn Asn Trp Ile Thr Leu Ser Arg Leu Ile Pro Leu Glu Ala
289 465                 470                 475                 480
291 Met Cys Lys Ala Arg Pro Leu Ala Ser Lys Val Glu Ser Tyr
292                 485                 490
294 <210> SEQ ID NO: 5
295 <211> LENGTH: 843
296 <212> TYPE: DNA
297 <213> ORGANISM: Glycine max
299 <220> FEATURE:
300 <221> NAME/KEY: unsure
301 <222> LOCATION: (476)
303 <220> FEATURE:
304 <221> NAME/KEY: unsure
305 <222> LOCATION: (657)
307 <220> FEATURE:
308 <221> NAME/KEY: unsure
309 <222> LOCATION: (703)
311 <220> FEATURE:
312 <221> NAME/KEY: unsure
313 <222> LOCATION: (712)
315 <220> FEATURE:
316 <221> NAME/KEY: unsure
317 <222> LOCATION: (789)
319 <220> FEATURE:
320 <221> NAME/KEY: unsure
321 <222> LOCATION: (843)
323 <400> SEQUENCE: 5
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325 tcctctccat aaacttcttg atccaaacaa gaaggttcaa aaaccttcct ccgggaccat 120
326 tttctttccc tataatcgga aacctccacc aactcaagca acccctccac cgcacgttcc 180
327 atgccttatc acaaaaatat ggccctattt tctccctctg gttcggctcc cgttttgtcg 240
328 tcgtcgtttc gtcgccgctc gcggtgcaag aatgcttcac caagaacgac atcgtcttgg 300
329 ccaaccgccc tcacttcctc accggcaagt atatagggta caacaacacc accgtcgccg 360
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VERIFICATION SUMMARY DATE: 11/07/2001
PATENT APPLICATION: US/09/868,546 TIME: 12:04:13

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\11072001\I868546.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:331 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:334 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:335 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:337 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:338 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5